

Manhattan Project telephone system to be replaced



PART OF SWITCHBOARD—Part of the old switchboard that Nuclear Division operators man is seen at the Federal Office Building. The new system, to be in effect January 1, will eliminate a lot of this antiquated equipment.



The old and the new

Corporate world of Union Carbide...

UNION CARBIDE CORPORATION'S third-quarter net income fell 14 percent below that of the same period last year, largely due to the effect of foreign currency translation and exchange adjustments. The company earned \$80.7 million or \$1.25 a share compared with \$93.4 million, or \$1.44 a share, in 1977. Record sales for the quarter were \$1.98 billion, 13 percent above last year's third-quarter total of \$1.75 billion.

Excluding currency losses, third-quarter net income was nine percent above the third-quarter last year. Net after tax currency losses for the quarter totaled \$23.7 million or 37 cents a share.

In addition to currency losses, the cost-price squeeze continues to effect net income. Despite excellent sales gains, increased revenues are not flowing through to earnings. The major reason is that competitive market conditions have not allowed Union Carbide to raise selling prices as rapidly as costs have increased.

Consequently gross margin has suffered.

* * *

POLYARYLATES—A NEW FAMILY of high performance engineering plastics—will be introduced in the United States shortly. In an agreement with Unitika Ltd. of Japan, developer and manufacturer of the resins, Union Carbide will become Unitika's distributor of polyarylates under the trademark Ardel.

Polyarylates are aromatic polyesters containing bisphenol A and phthalic acids. The basic resin is a moldable, transparent, structural thermoplastic which exhibits excellent ultraviolet stability and has continuous-use temperature ranges exceeding those of polycarbonate. The Ardel polyarylates have good electrical properties and are resistant to a broad range of hostile environments. These properties and performance characteristics suggest wide-ranging, significant applications in transportation, solar heating and electrical markets.

Nuclear Division employees in the Oak Ridge installations returning to work after the start of the new year will experience a completely new phone system—the Electronic Switching System (ESS). Much of the groundwork has already been done including the installation of new telephone cables and 14,000 telephones.

Everyone will learn new steps in order to use the system. A great amount of effort has gone into assuring that the transition at 1 a.m. on December 30, 1978, will go smoothly.

System outdated

"Why all the fuss? Why do we have to go to a new system?" These are questions many people ask. The answers are simple. The present system is outdated; it is filled to capacity; lines are congested; and the system has few features that are considered standard today. In many cases, replacement parts are no longer manufactured. The system is expensive to maintain.

During the war years, the phone system was adequate to meet the needs of the government, contractors, residential and other Manhattan Project-connected entities. Government personnel operated the system. After the war, as Oak Ridge began the transition to a more normal community, service to the city was provided through an exchange operated by the Bell System. Service to the project-associated groups continued to be supplied by the government.

Was modern—then

The system, which is basically a mechanically operated step-by-step gear type, was considered modern when first installed. It performed satisfactorily and met the demands placed on it for 20 years. However, the first signs of obsolescence began showing up with the introduction of data transmission by telephone lines. The present system was engineered to provide voice communications. The signal quality did not consistently meet data grade specifications, and technical problems began appearing.

At the same time, the impact of gradual program and population

growth began to be felt. The problem was further aggravated by the rapid proliferation of data traffic to a point where system saturation became a serious problem. Considerable efforts were made to improve the quality of data circuits at each of the installations.

Four years ago, extensive studies were undertaken to define anticipated growth and expected future telephone system requirements.

To serve all facilities

The studies confirmed the need for a computer control ESS facility with the latest technology. A decision was made to construct a new telephone building at Milan Road, across the turnpike from the Purchasing Division, Oak Ridge, where the primary telephone switching facilities are to be relocated. Nuclear Division attendants/operators, however, will be located in a separate building at Townsite. Facilities presently serving the DOE system are located at the Federal Building in Oak Ridge, and at each plant site. The new location will serve both the community and all local federally-connected services and facilities.

The next question may be, "How is the new system different?" A discussion of various changes will be in the next edition of the **Nuclear Division News**.

246th dividend...

The board of directors of Union Carbide has declared the corporation's 246th consecutive dividend. It is seventy cents a share on outstanding capital stock, payable December 1, to stockholders of record on November 3.

This is the same as the last quarterly dividend paid September 1.

In this issue. . . .

Pages 4 and 5 of this issue contain important Summary Annual Reports of benefits in the Nuclear Division. This information should be retained by employees and retirees for future reference.

ORGDP completed a successful blood drive October 30 and 31 for the Red Cross. Photographs and story are on page 2.

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Paducah Community College sponsors first alternating co-op.....page 7





WELL DONE!—Lonnie Anthony, left, and G. Charlie Baker, co-chairmen for the blood drive at ORGDP, share congratulations for the successful drive last week that netted 508 units of blood. Anthony is in the Computer Sciences Division and Baker is president of the Oil, Chemical and Atomic Workers International Union Local 3-288.

Successful drive at ORGDP collects 508 units of blood

"More volunteers than we could handle," was the news highlight of the blood drive at ORGDP October 30, 31. Both Lonnie Anthony, Computer Sciences, and Charlie Baker, president of the local Oil Chemical and Atomic Workers International, agreed that last week's drive exceeded their best hopes. "We turned down more than 200 donors because the schedule just did not permit that many," the co-chairmen said.

Despite the excess of donors, 508 units of blood were drawn. More could have been drawn had it not been for the crowded space at Portal 2. "We just did not have the room," Red Cross officials said. As it turned out, two trailers were utilized for preliminary screening and testing, in addition to the conference room at the main portal.

The first day of the drive, 245 pints were collected. Of this number, 72 gave blood for the first time.

Of the 263 units of blood taken on the second day, 215 came from first time donors! Officials state this to be unusually high.

The visit to ORGDP assures employees, retirees and their families that their blood needs will be met now matter where that need occurs. By calling the Oak Ridge Chapter of the American Red Cross, giving the patient's name and the hospital where the blood was used, the replacement will be effected immediately.

Human donors are the only source of blood, Harry Harwell, Blue Cross and Blue Shield of Tennessee, recently pointed out. "Blood is a non-priceable commodity. Many people—if given an alternative—would rather not part with any of their blood. They'd rather pay for it, or have someone pay for them, instead of replacing it with a donation."

"Blood simply cannot be replaced with benefits," the Blue Cross official concluded, "There is no substitute, and no amount of money will equal its value in the saving of human life."

Anthony praised his divisional coordinators throughout the plant for their assistance and patience. "We hated to turn down donors. There is a drive in the city November 29 at the Civic Center. We hope as many that can will show up for that one."

Meanwhile, Y-12 will enter the program early in 1979, as a drive there

is set for January 2, 3. Details on Y-12's drive will be announced soon.

Comments from a random selection of donors follow:

William Goode, Operations Analysis, of Oak Ridge, "thought it would help someone else. And I have no problem doing it."

Eugene Miller, Engineering, an Oak Ridger, "It's a good thing to do. A lot of people need blood, and I never know when I will need it."

Linda Choate, Barrier Development, who lives in Harriman, a first-time donor, "Nobody had ever asked me to give before, and I didn't know exactly how to go about it."

Della Seavers, Barrier Development, and a resident of Coalfield, was also asked by some of her co-workers to give. "This was the first time I ever gave. There's nothing to it."

Roger Howard, Technical Services, a resident of Crossville, said, "it has been a few years since I last gave blood. Thought it was time I started again."

Dan Kessell, Maintenance, giving his 22nd unit of blood, stated: "It's free to me, and it helps my fellow man." Kessell usually gives at the Civic Center in Oak Ridge.

Lillian Brown, Computer Sciences, a resident of Oak Ridge, who gave for the first time. "I just wanted to do it."

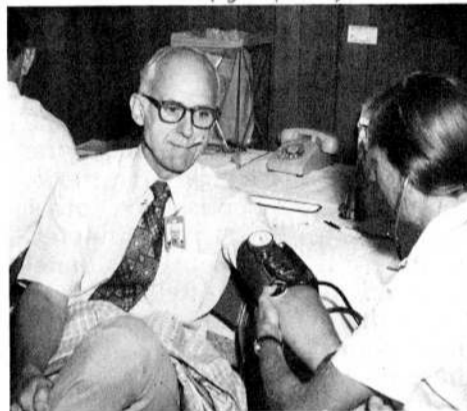
Walter Ghosten, Separations Systems Division, who lives at Powell, giving for the first time, "It's another way to give my Fair Share!"

patent granted. . .

To Robert L. Hale, ORGDP, for "Method for Fabricating a Flow Device."



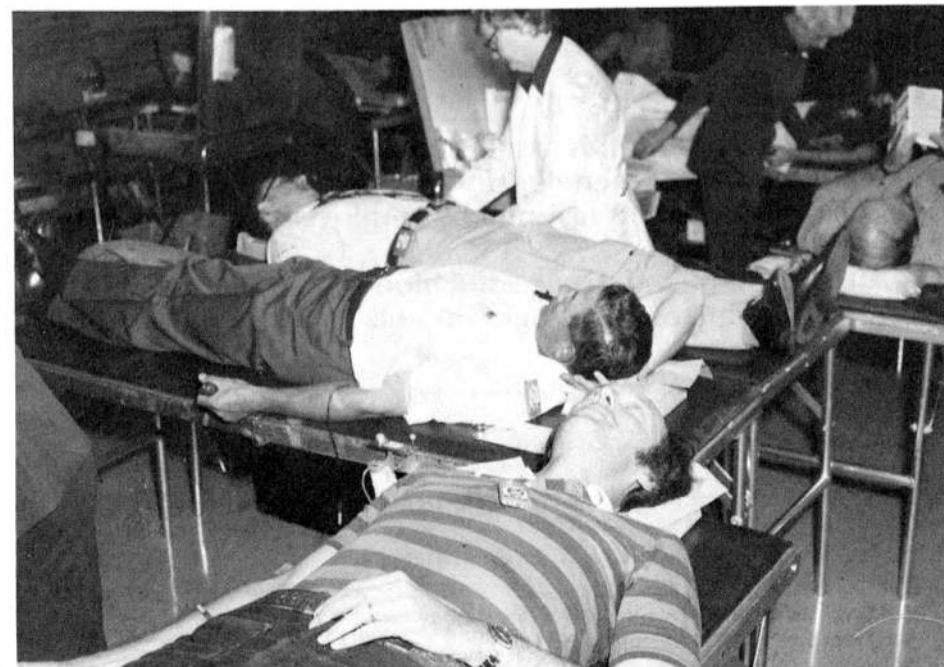
Ear-piercing



Temperatures, blood pressure



Drawing room



Relaxing during donation



Cookies afterward

Enjoying the leisure life. . .



Harold E. Cornell
Y-12 Fabrication
27 years service



James O. Harrison
Y-12 Guard Department
6 years service



Melburn L. Patterson
Y-12 Fabrication
27 years service



William K. Whitson Jr.
Engineering, Y-12
27 years service

question box. . .

If you have questions on company policy, write the editor, **Nuclear Division News** (or telephone your question in, either to the editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

Deer population

QUESTION: Past articles in the **Nuclear Division News** have indicated a growing deer population in the areas controlled by Union Carbide. There are areas where well organized managed hunts could act to help with this overpopulation. Have supervised hunts been considered wherein hunters could help in this area?

ANSWER: There is, in fact, a thriving deer population on the Oak Ridge reservation. It is, however, well controlled by a live-trapping program carried out by the Tennessee Wildlife Resources Agency in cooperation with DOE. The captured deer are used to stock other parts of the state, including wildlife management areas where hunting is permitted. Supervised hunts on the reservation have been considered, but the idea was rejected for two reasons. First, the reservation is within the confines of the city of Oak Ridge, whose ordinances do not permit the discharge of firearms. Second, any kind of hunting would create an unacceptable safety problem because the reservation is interlaced with public roads, and there are Nuclear Division employees who work in scattered remote parts of the reservation.

Parking lot abuses

QUESTION: Recently Y-12ers have started parking in the passenger pick-up lanes, particularly at North Portal. Since this is an obvious safety hazard, can it not be stopped?

ANSWER: During the month of September, a sudden and unanticipated relocation of parking did overcrowd the North Portal. The Company took immediate steps to expand the parking area by providing a gravel-surface plot at the northwest corner of the lot. Also, through line organization communications, occupants of the North Parking Lot who could do so with reasonable convenience were urged to use available space in the not-too-distant Central Parking Lot; and for further accommodation, a plant bulletin supplement was issued on October 2 to restate the coordinating services available for the formation of

carpools. The bulletin included an updated listing of division coordinators. We were pleased with the response to this bulletin.

We think the parking you refer to has been corrected now that sufficient approved parking space is available. The continued cooperation of all drivers is necessary, if we are to maintain our mutual objectives of safety.

Promotion eligibility

QUESTION: An engineering assistant was recently promoted to an Engineer I in the Assembly Division. Why is this possible when this person does not have any kind of degree in engineering? He does not have the 20 years' experience required either.

ANSWER: A promotion of this kind is based on total assessment of the job involved. To be considered for such a promotion, relative work experience and general capability to perform the duties of the job well are significantly more important than formal educational background. While a degree is desired, it is not an absolute requisite, nor is the passage of a certain amount of time.

Cafeteria inspections

QUESTION: A cockroach made me do it! Yes, upon seeing a cockroach running around in the salad case at the cafeteria, I decided it was time to write the QUESTION BOX! Is there an action plan for maintaining a Grade A rating for the cafeteria? Is there a schedule for exterminating services and is it adhered to?

ANSWER: Formal inspections of the cafeteria and canteens are made on regular schedule. These inspections, in addition to covering ratings of the general conditions, kitchens, floors, refrigeration, preparation areas, etc., include a system of testing for bacteriological control.

There is a schedule for spraying and area fogging in each food handling area at each plant. Recently, the schedule at the Y-12 Plant was temporarily interrupted. They are now back on schedule.

Deliveries of products from warehousing outside of our control are the major source of problems of this nature.

Harms heads reactor technology program; succeeded by Patriarca

The appointment of William O. Harms as director of nuclear reactor technology programs at ORNL has been announced by Donald B. Trauger, associate director for nuclear and engineering technologies. Establishment of this new position consolidates the management of four nuclear programs that involve similar disciplines.

Harms, who has been coordinator and director of the Laboratory's breeder reactor programs for the past 10 years, will continue to have overall responsibility for that area. In addition, he will be responsible for the nuclear standards program, light water reactor technology program, and the space and terrestrial systems program. These activities, all supported by DOE's Office of Nuclear Energy Programs, have annual operating budgets totaling approximately \$15 million.

Peter Patriarca, formerly manager of the breeder reactor materials program, has been named as the new manager of the breeder reactor program, succeeding Harms. Reporting to him will be the following technology programs: fuels and materials, high temperature structural design, measurements and controls, physics, and safety and core systems.

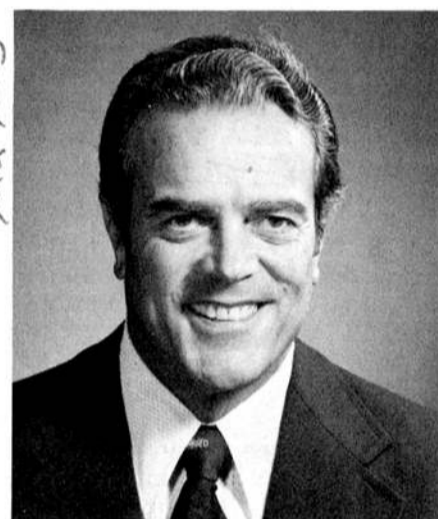
Harms joined the Union Carbide staff at ORNL in 1953 as a metallurgist and continued as a consultant while serving as an associate professor of metallurgical engineering at the University of Tennessee from 1955 to 1960. He then became head of the ceramics laboratory in the Metals and Ceramics Division and later director of the high temperature materials program.

He holds the BS degree in metallurgical engineering from Wayne State University and the MS and PhD degrees in physical metallurgy from the University of Minnesota.

Harms' most recent assignment has involved participation in the International Fuel Cycle Evaluation initiated in May 1977 by President Carter. The Los Angeles chapter of the American Society for Metals last year established an award in his name to recognize outstanding accomplishments by students in the



William O. Harms



Peter Patriarca

field of metallography. He also is a fellow of the Society.

Harms and his wife, Gracie, live in Knoxville. They have three children.

Patriarca received BS and MS degrees in metallurgical engineering from Rensselaer Polytechnic Institute and has held group leader, section head, and program manager assignments in the Metals and Ceramics Division, where he organized the welding and brazing laboratory.

A member of the ORNL staff since 1950, he is a fellow of the American Society for Metals and past chairman of its Oak Ridge section. In 1976, he was honored by the American Welding Society with its Comfort A. Adams Lectureship Award.

Patriarca and his wife, Virginia, live in Knoxville. They have three children.

division deaths...

James V. Hackler, Maintenance Division at ORGDP, died October 23 at his South Kingston Avenue, Rockwood, home. He joined Union Carbide in 1944.

Survivors include his son, James V. Jr.; and daughter, Ronny Keller; his mother, Agnes Hackler; brothers, C. L., Floyd and Earl; and sisters, Mrs. Luke Jenkins, Mrs. Lois Ashbrook and Mrs. J. L. Turnington; and six grandchildren.

Funeral services were held at Booth Memorial Chapel, with burial in the Friendship Cemetery.

George D. Woodall, Operations Division at ORGDP, died in a Knoxville hospital October 29. He



Mr. Hackler



Mr. Woodall

lived on Star Route, Lansing, and had been at ORGDP seven years.

Survivors include his wife, Faye; a son, Tony; daughters, Tina and Stacey; parents, William and Frances; brothers, Richard and Steve; and sisters, Billie Robinette, Ann Woodall, Betty Stacey and Donna Clontz.

Services were held at Potters Chapel Church with burial in Potters Cemetery.

anniversaries ...



Bridges



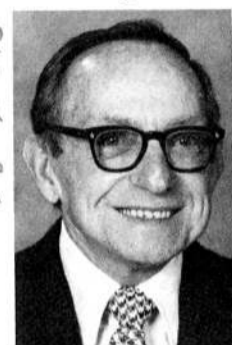
Briscoe



Bruce



Cantrell



Heatherly



Loftus



Petretzky



Welchel

M. B. Bridges, a senior drafting technologist in the Engineering Division at ORNL, joined Tennessee Eastman's Training Division at Y-12 on December 1, 1943. Bridges lives at 521 Moody Avenue, Knoxville.

Otto W. Briscoe, superintendent of Y-12's Laboratory Division, joined the Manhattan Project November 9, 1943. He lives at 405 Highland Drive, Clinton.

Frank R. Bruce, ORNL assistant director for administration, began his company service on December 5, 1943, in Clinton Laboratories' Chemical Technology Division. Bruce lives at 116 Euclid Circle, Oak Ridge.

Robert T. Cantrell, retirement counselor in Employee Relations, Y-12, came to Y-12 November 17, 1943. He lives at 114 East Pasadena Road, Oak Ridge.

Jesse L. Heatherly, Y-12's Laboratory Division, came to Y-12 November 17, 1943. He lives at 5709 Blossom Drive, Knoxville.

James M. "Stump" Loftus, an instrument maker in ORNL's Plant and Equipment Division, joined Clinton Laboratories on December 4, 1943. Loftus lives at 113 W. Scott, Knoxville.

Paul B. Petretzky, Y-12 Material Testing Support, came here November 9, 1943. He lives at Georgia Avenue, Oak Ridge.

Wilburn W. Welchel, Y-12 Chemical Services, joined Y-12 November 9, 1943. He lives at Route 1, Ridgeview Drive, Knoxville.

Paul E. Wilkinson joined Y-12 November 8, 1943. He is on the senior staff of Y-12's Product Engineering and Scheduling Division, and lives at 1001 West Outer Drive, Oak Ridge.

PADUCAH

25 YEARS

Wilber B. Akers Jr. and Buren D. Johnson.



Wilkinson

Y-12 PLANT

30 YEARS

Clyde C. Carter, H-1 Foundry; Robert McKinney, Casting Department; and Charles R. Melhorn, Utilities Administration.

25 YEARS

Charles F. Klein, Joseph P. Cavanaugh, R. Raymond Moore, George W. Phipps, William B. Goss, Henry J. Tyl, Aven R. Brown, Harry E. Shatley, Joseph E. Boland, Mack L. Petty, Claude J. Foxx, Charles E. Jenkins, Edwin E. Spradlen, Joseph F. May, James O. Overton, Alonzo A. Hinton, Edward E. Hickman, Clyde F. Brewer, Curtis G. Wilson, Sam F. Russell and Owen C. Willard.

ORGDP

20 YEARS

P. Stephen Cates.

ORNL

35 YEARS

Donald E. Spangler, Chemical Technology.

25 YEARS

Kathren F. Stelzner, Wilber R. Finnell, Frank E. Morris, William E. Clifton and Austin W. Duncan.

20 YEARS

A. Seaton Garrett Jr.

Next issue...

The next issue will be dated November 23. The deadline is November 15.

Nuclear Division su

The Employees' Retirement Income Security Act of 1974 (better known as ERISA) requires that you be given summaries of annual financial reports filed with the U.S. Department of Labor. The following materials give data limited to the Nuclear Division and are intended to give you important information about the financial status of the plans for the Plan Year 1977.

EMPLOYER:
Union Carbide Corporation
270 Park Avenue
New York, New York 10017

ADMINISTRATOR:
Union Carbide Corporation
270 Park Avenue
New York, New York 10017
Telephone: (212) 551-2345

The complete annual reports, from which the following summaries

SUMMARY ANNUAL REPORT TO PARTICIPANTS—1977 CONTRIBUTORY RETIREMENT PLAN FOR EMPLOYEES OF UNION CARBIDE CORPORATION AT DOE FACILITIES

Plan Number 004
Insurance Information
(Extract from Annual Report)

Contract Number GA-273-J

| | |
|--|-----------|
| 1) Contracts with allocated funds (Group Annuity Contract) | |
| Total premiums paid to carrier | \$808,205 |
| 2) Contracts with unallocated funds: | |
| Balance at end of previous year | 496,960 |
| Interest credited during year | 24,848 |
| Total | 521,808 |
| Balance at end of year | 521,808 |

SUMMARY ANNUAL REPORT HOSPITAL-SURGICAL PLAN UNION CARBIDE CORPORATION

Plan Number 003
Insurance Information
(Extract from Annual Report)

| | |
|-----------------------------------|--|
| Premiums paid to carrier | |
| Claims paid | |
| Increase in claim reserves | |
| Incurred claims | |
| Commissions | |
| Administrative service | |
| Other expenses | |
| Taxes | |
| Other retention charges | |
| Total retention | |
| Dividend credited | |
| Status of reserves at end of year | |
| Amount held to provide benefits | |
| Claim reserves | |
| Other reserves | |



SUMMARY ANNUAL REPORT TO PARTICIPANTS—1977 NON-CONTRIBUTORY PENSION PLAN FOR EMPLOYEES OF UNION CARBIDE CORPORATION AT DOE FACILITIES

Plan Number 003
Insurance Information
(Extract from Annual Report)

Contract Number 338-J

| | |
|---|---------------|
| Balance at end of previous year | \$291,919,470 |
| Contributions during year | \$47,200,000 |
| Dividends and credits | 10,271,149 |
| Interest credited during year | 17,461,654 |
| Transferred from separate account | 5,199,646 |
| Other | 818,552 |
| Total additions | 80,951,001 |
| Total of balance and additions | 372,870,471 |
| Disbursed to pay benefits or purchase annuities | 34,076,356 |
| Balance at end of current year | 338,794,115 |

ns up Benefit Plans

were prepared, are available at a reasonable charge, or you may inspect them without charge. To obtain a copy of the documents write:

The Plans Administrator
Corporate Benefit Plans Department
Union Carbide Corporation
270 Park Avenue
New York, New York 10017

You will be informed of the cost of the documents you want so that you will know the charge before ordering. If you wish only to inspect the documents, you may do so during regular business hours at the office of the plans administrator and, upon written request, at principal establishments of the Company.

SUMMARY ANNUAL REPORT TO PARTICIPANTS—1977 MAJOR MEDICAL PLAN FOR SALARIED EMPLOYEES OF UNION CARBIDE CORPORATION AT DOE FACILITIES

Plan Number 523
Insurance Information
(Extract from Annual Report)

| | | |
|-------------------------------|-------------|-------------|
| Premiums paid to carrier | | \$1,900,532 |
| Claims paid | \$1,253,544 | |
| Increase in claim reserves | 221,214 | |
| Incurred claims | | 1,474,758 |
| Taxes | 33,259 | |
| Other retention charges | 90,275 | |
| Total retention | | 123,534 |
| Dividend credited | | 302,240 |
| Claim reserves at end of year | | 695,218 |

RT TO PARTICIPANTS—1977 AN FOR EMPLOYEES OF ATION AT DOE FACILITIES

ber 521
nformation
nnual Report)

| | |
|--------------|--------------|
| | \$12,137,273 |
| \$10,367,690 | |
| 398,943 | |
| | 10,766,633 |
| 28,593 | |
| 54,942 | |
| 25,812 | |
| 202,953 | |
| 464,975 | |
| | 777,275 |
| | 626,374 |
| | 521,925 |
| | 985,918 |
| | 18,680 |

Savings Plan status in Carbide World

The financial status of the Savings Plan, and Group Life Insurance information are contained in the September issue of **Carbide World**, which should be in all Nuclear Division employees' hands at this time. It is not contained in the data on this page.

SUMMARY ANNUAL REPORT TO PARTICIPANTS—1977 SPECIAL MEDICAL PLAN FOR HOURLY-PAID EMPLOYEES OF UNION CARBIDE CORPORATION AT DOE FACILITIES

Plan Number 522
Insurance Information
(Extract from Annual Report)

| | | |
|------------------------------------|-----------|-------------|
| Premiums paid to carrier | | \$1,054,988 |
| Claims paid | \$957,468 | |
| Increase in claim reserves | 64,535 | |
| Incurred claims | | 1,022,003 |
| Commissions | 6,083 | |
| Other expenses | 12,799 | |
| Taxes | 21,100 | |
| Other retention charges | 34,192 | |
| Total retention | | 74,174 |
| Status of reserves at end of year: | | |
| Amount held to provide benefits | | 508,057 |
| Claim reserves | | 57,808 |
| Other reserves | | 22,628 |

wanted...

ORNL

RIDE from vicinity of Hunter Circle, Hillside or Highland Avenues, Oak Ridge, to any portal, 8-4:30. Kun Joong Yoo or Tom Hamrick, plant phone 3-1188.

sCAR POOL MEMBERS from Lovell Heights area, Concord, to North or West Portal, 8-4:30. Jerry Dixon, plant phone 3-1108, home phone 966-1232.

ONE or TWO CAR POOL MEMBERS from Powell vicinity of Irwin Road and Beaver Creek Drive to East Portal, 8-4:30. Eugene Lamb, plant phone 3-6483, home phone 947-6037.

RIDE or RIDER from Windsor Court Apartments, Fountain City area, to East Portal, 8-4:30. Brenda Hatchett, plant phone 3-6766, home phone 687-9413.

JOIN CAR POOL from East Village area, Oak Ridge, to West Portal, 8-4:30. Gary Puckett, plant phone 3-1516 or 3-0221, home phone 483-7116.

Y-12

RIDE from South Clinton to East Portal, 8-4:30. Loretta Johnson, plant phone 3-5471.

RIDE from Lake City to Central Portal, straight day. Linda Griffith, plant phone 3-5495, home phone Lake City 426-2460.

RIDE from Broadacres subdivision, Powell, to Central Portal, straight day. Jymme Armstrong, plant phone 3-7767, home phone Powell 938-8134.

ORGDP

RIDE or JOIN CAR POOL from Rockwood to any portal, 7:45-4:15 shift. Lucy Kikham, plant phone 3-3045, home phone (Rockwood) 354-3037.

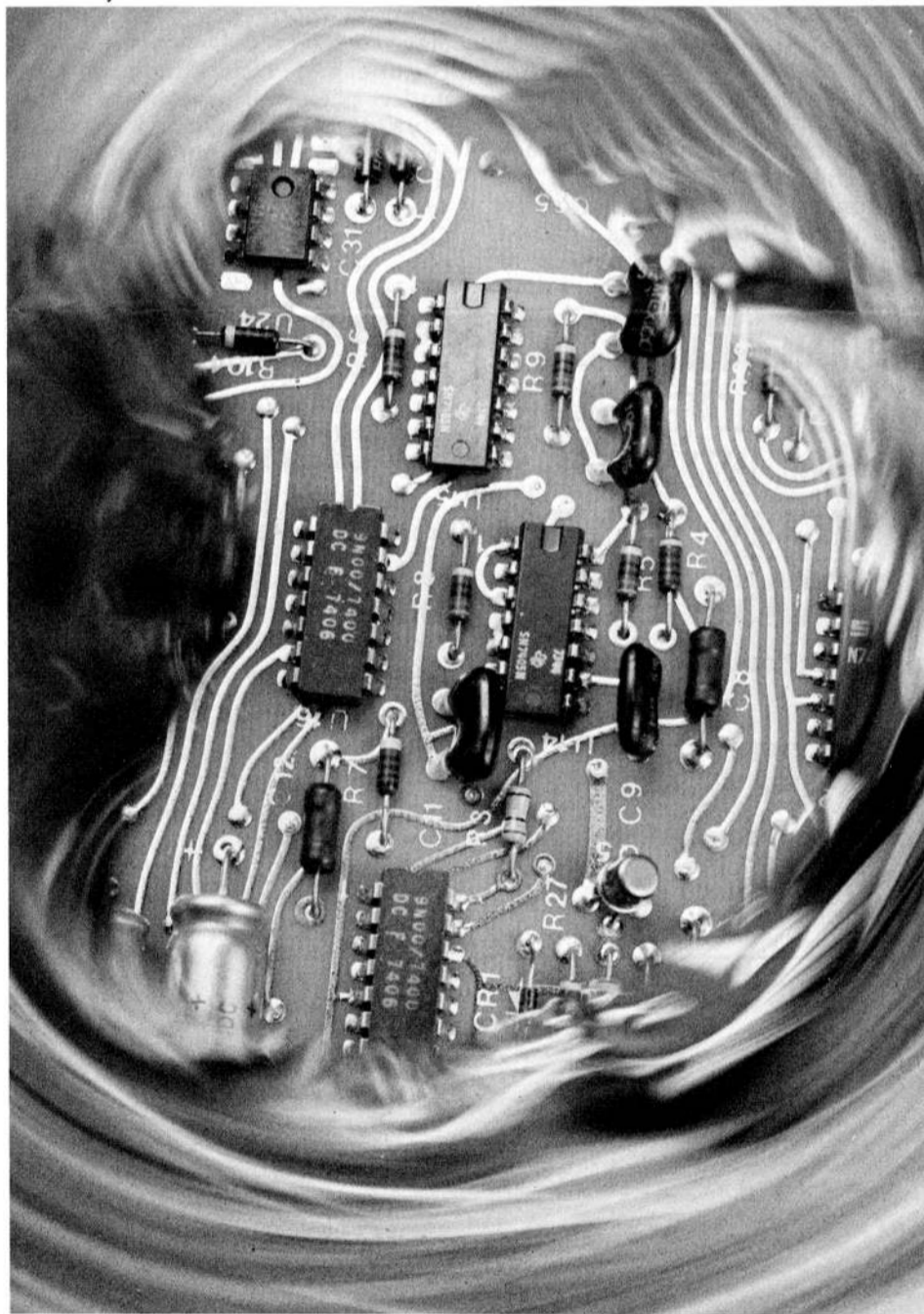
JOIN CAR or VANPOOL from East Wolfe Valley Road in the Heiskell area, to Portal 4, 8-4:30. Sherrie Carroll, plant phone 3-3541, home phone 457-6415.

RIDE from Bearden area of West Knoxville, to Portal 2, 8-4:30. Sarah "Neal" Horne, plant phone 3-3800, home phone 584-0889.

RIDE from Lenoir City (Sandy Shore Division) to Portal 2, 2nd shift. Florence Sarten, plant phone 3-9581, home phone 986-7294.

Interesting carpools?

Editor's note—Attention, car poolers! We're on the lookout for long-standing or interesting car pools for feature articles in the *Nuclear Division News*. Call story tips in to the News contact at your plant (listed each issue in the masthead).



'Circuit Fantasy'

"Circuit Fantasy," another winning photograph by Jon Q. Thompson, received the "Best of Show" award in the industrial category at the Tennessee Professional Photographers' Association Convention in Nashville this summer. It also was exhibited at the Professional Photographers of America Convention in Las Vegas. As a result of the national exhibit, "Circuit Fantasy" was selected for publication in *The Professional Photographer* magazine, October issue, in a section called "Industrial Techniques," which described how the photo was made.

recreationotes . . .



WEATHERED WINNERS—Although the Paducah Plant golf league's end-of-season tournament was plagued with stormy showers, those with winning attitudes weathered the storm to finish 18 holes of tournament play. In the front row, from left, are Bill Higgins, Bill Rudolph, J. Harbison, Phil Brown, Tony Morphew and Earl Richardson. In the back row are Carlton Vickery, Lynn Litzinger, Archie Miller Jr., Archie Miller III, Gene White, Gus Kosinski, Mike Mazzone, Steve Seltzer, Bob Moss, J.B. Howard and Mike Flood. Not pictured were Bruce Kersey, Max Sacharnoski and Jim Lawson.

Paducah scrabble.

The Lake Barclay Boots Randolph Golf Course was the setting for Paducah's most recent golf scrabble, October 21. Leading the day's contenders were Marshall Jones, C. E. Varble, "Pap" Reed and Dot Simmons with a composite score of nine under. Scoring closely behind top place were Phil Brown, Jerry Smith, Bill Longton and Dutch Bryant with an eight under. Gene White captained the number three team consisting of

Mike Flood, J. B. Howard and Nancy Sanderson. Jerry Neale, A. C. Miller III, Jim Ballard and W. E. McMannus captured fourth place followed by Steve Seltzer, Bob Moss, Manley Fortune and Walt Whinnery. One under placed the team of Keith Bryant, Dave Dodson, Dave Sanderson and JoAnn Longton in sixth place leaving Harry Colbert, John Hackney, R. L. Langston and Georgetta Riddle to fill the seventh place slot.

Jerry Smith captured the day's "Nearest-the-Pin" contest.

The plant's next scrabble is scheduled for November 11, at Paxton Park.

Paducah volleyball

The 1978-79 Men's Volleyball League has been at the nets since mid-October in the Paducah Parks and Recreation Department. Union Carbide fans are welcome to attend. The season schedule is as follows: November 20—8:30 p.m.; 21—7:30 p.m.; 27—6:30 p.m.; 28—8:30 p.m.; December 4—7:30 p.m.; 5—6:30 p.m.; 11—8:30 p.m.; 12—7:30 p.m.; 19—6:30 p.m.; January 17—6:30 p.m.; 24—8:30 p.m.; 31—7:30 p.m.; and February 7—6:30 p.m.

All games are played at the Jetton Junior High School gym. Six games are played with each team playing two others each.

Carbide bowling. . .

UCC Monday Mixed. . .

The Roadrunners continue to lead the Monday Mixed League at Western Plaza. They have a two-game lead over the Alley Cats and the Pin Breakers. Individual honors go to Dean Treadway for his first 600 series which is high for the league. He rolled a 233-184-183=600 to take first place.

Family Mixed. . .

The Coneheads, Arty Chokers and Oops are all tied for first place in the Family Mixed League with a 13-7 record. Del Ducay rolled a 553 scratch series for men, and Janie Sharp rolled a 491 series for women.

ORNL A League. . .

The Zots and Dynamics have a close race in the ORNL "A" League. Weekly prizes were won by the Dynamics for high handicap series of 2932. Tom Kitchings, of the Zots, won high handicap series of 649. McCulley, of the Fireballs, won handicap game with a 244. Carlton, ORAU, rolled the high scratch game of 213.

UCC Mixed League. . .

The Go-Getters lead the U.C.C. Mixed League over the Lickety Splits by one point. The Roll-aids and Alley Cats are only three and four games behind.

ORGDP Women's. . .

The Payoffs have a comfortable lead over the Purchaseettes in the ORGDP Women's League. Emily Hester and Shirley Yaggi tied last week for "Bowler of the Week" award rolling a 587 handicap series.

K-25 Wednesday League. . .

The Losers are leading the Wednesday Men's League over the Planners by three points. D.L.M. Used Cars are only five points out of first. G.E. Bullock, of the Protectors, holds the season high series with 673. Colin Bullen, of Sues Sooners, won the weekly prize for high game with a 235. John Shelton, of the D.L.M. Used Cars, won high series with 624.

Classic League. . .

With seven weeks of bowling completed, the Eightballs and Ridgers are tied for first place with a 22-6 record. The Smelters won high handicap game and series with a 1074/3067 moving them in first place for the season. Bill Patrick rolled a 274 handicap game; and Paul Bradon a 684 handicap series for the individual highs.

Y-12 C League. . .

The Mini-Strikes have a three-point lead over the B-Fives in the "C" League this week. Charlie Baxter and Grady Norton hold a tie on high handicap series with 674. Bill Johnson has the season high game with 274.

K-25 Tuesday League. . .

The Team has a commanding lead over the City Slickers in the Tuesday Men's League. Weekly prizes began with R.K. Johnson rolling a 224 scratch game; and M.J. Gibson rolling a 247 handicap game. B.G. Human won high scratch series with 570; and J.D. Luigs won high handicap series with a 630.

PADUCAH PLANT LADIES AND EMPLOYEE WIVES WHO ARE INTERESTED IN COMBINATION JAZZ-YOGA EXERCISE CLASS

FILL OUT & RETURN TO RECREATION DEPT.

NAME _____

PLANT PHONE No. _____

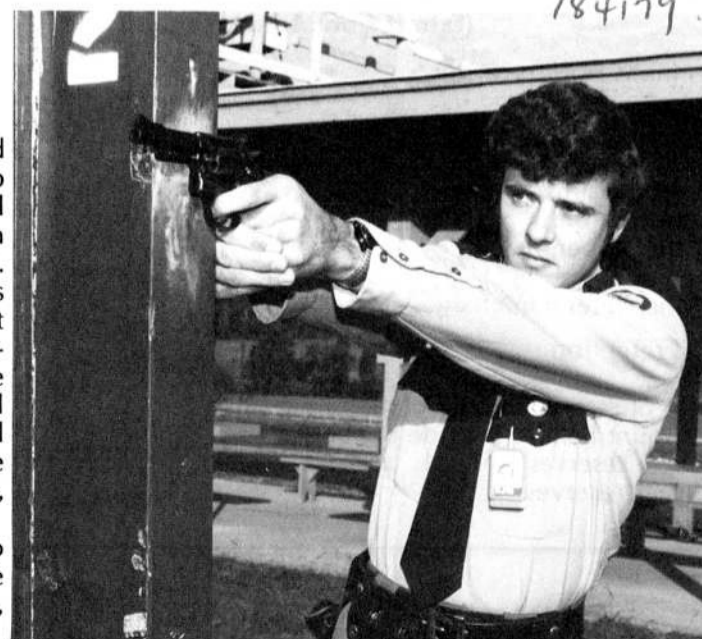
CHECK YOUR PREFERENCE OF EVENINGS

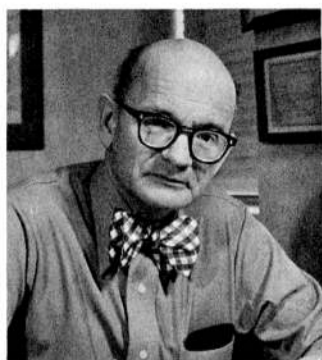
MON. ☐ TUE. ☐ WED. ☐ THUR. ☐

Firearm trophies

William C. Gheen, Y-12 Guard Department, has picked up numerous trophies for pistol marksmanship this year in competition around the country. Dead-eye firing brought him honors at the Tennessee Law Enforcement Officers Association, The Tennessee-Mississippi Association, the Department of Energy's annual pistol tournament at Mercury, Nev. and most recently at the East Tennessee Rangemasters firing competition, sponsored by DOE.

Gheen, who has been at Y-12 two years, lives at 6036 Pleasant Ridge Road, Knoxville. He and his wife, Tanya, have one child.





Hobbies have toxic hazards

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 21, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

Off-the-job accidents are almost always sudden and painful. Off-the-job exposures to toxic materials and noise can also cause adverse health effects, but they are usually less spectacular and frequently are totally unappreciated. Do-it-yourself projects and hobbies provide numerous opportunities for potentially dangerous exposures. Acute severe toxic reactions are not common, and many over-exposures do not cause any symptoms. Subtle damage, however, can occur which may have a significant adverse long-range impact on health.

Most working people probably don't spend more than 8 to 16 hours a week on their project or hobby and usually much less. It may be difficult to believe intermittent exposures during such a relatively short time could be of great concern—at least when compared to exposures at work over a 40-hour week. The difference is that home exposures can be to extremely high levels even though short in duration. Work exposures are usually carefully monitored and controlled. Home exposures often don't even have the care of reading a label and following the instructions.

Environmental risks

In some cases, the work and home exposures are to be the same substance. Efforts to control the work exposures are useless if the home exposures continue unabated. For example, a leadburner was found to have unusually high blood and urine levels of lead when checked at the plant. Investigation of his work exposure failed to reveal any reason for the high levels. Persistent questioning by the company industrial hygienist revealed a potent hobby exposure. The leadburner was making Hadacols, a popular fishing jig. The hook was put in a mold, and a small amount of molten lead poured around it. No special ventilation was used.

Another example was one in which a worker's audiogram revealed a hearing loss. Investigation of the work area failed to reveal any cause. Careful questioning uncovered a hobby of target shooting with a high powered rifle without the benefit of ear plugs or muffs to attenuate the noise. Hearing protection is required in noise risk areas at work. Who takes care of the worker at home?

The list of potential toxic exposures at home is so long that only a few examples can be cited.

Mercury is an extremely toxic metal when high enough exposures occur. It is often used in the manufacture of

artificial jewelry. Some oil paint pigments also contain mercury. An example of a dangerous exposure occurred several years ago to an amateur gold prospector. He developed diffuse lung disease after heating some allegedly gold-bearing sand with mercury in a pot on a domestic stove in an attempt to extract the gold.

Chemical hazards

Amateur jewelers frequently perform silver soldering and are exposed to cadmium fumes which are acutely toxic to the lungs and chronic exposure can lead to lung, kidney and brain damage.

Benzene has been used as a general solvent, especially for resins and rubber cement. Because of the long-term toxic effect on the bone marrow, this chemical has largely been withdrawn from the retail market. However, old supplies may still be sitting around on shelves. It absolutely **never** should be used at home unless extreme precautions, including a proper respirator, are used.

Gardeners beware

Gardeners frequently use large quantities of pesticides and fungicides. Do they carefully read and follow the instructions on the package or bottle? Unfortunately, many do not.

Manganese is found in glazes used on pottery. This metal is extremely toxic when exposure is high enough. Permanent damage to the central nervous system can occur.

Exposure to zinc fumes or dusts in ceramic work or during grinding or welding may cause chills and fever four to eight hours later, a condition known as metal fume fever.

Kilns which are used for firing pottery may give off sulfur dioxide and carbon monoxide or other vapors from glazes which can be highly toxic. Kilns should always be vented to the outside and away from any air intake or window.

Practical advice

Although complete safety requires thorough knowledge plus meticulous

care, a few practical words of advice should be useful:

- Always read the label before using any product and always follow the instructions.
- Plastic gloves and long-sleeved clothing should be used when working with solvents to keep them off the skin.
- Use of a respirator may be advisable when working with powders, dusts, aerosols or fumes.
- Always have good ventilation.
- Never smoke while working with toxic materials. It may increase the toxicity by raising the temperature of the toxic fume inhaled or may cause powders which settle on the cigarette to be burned and introduced into the lungs. These powders can also be deposited on the lips and tongue and then swallowed.
- Hands should be washed, and fingernails kept short and clean.
- Keep children away from work areas—especially since lead weighing the equivalent of a BB pellet can severely poison a small child if eaten.
- Women who already may be pregnant, or plan to get pregnant, should avoid all exposures to toxic materials.

Whenever in doubt, consult your plant industrial hygienist or occupational physician. To know is to protect. To remain ignorant is to court disaster.

First at PDGDP

Paducah Community College sponsors alternating co-op

Angela Reed, a sophomore at Paducah Community College, is that school's first co-op on an alternating basis. She is paid for 40 hours of work and gains college credit at the same time.

Reed, in this option, works full time one semester and is enrolled in school the next. This differs from the

parallel option of attending school and working in the afternoon.



'CO-OP' ERATION—Co-op student Angela Reed alternates semesters at Paducah Community College with fulltime employment at the Paducah Plant as part of a co-operative educational program. She is one of three employees in the plant's clerical pool reporting to Joel Ellington, left, Paducah's Employment Department. Reed is the first co-op student to be placed at the plant by the pilot project.

Reed was first employed at the Paducah Plant in the spring, then returned to school for the summer session. She is currently working at the plant again and will reenter school in January.

The co-op position fills one of three clerical pool slots in the plant's Employee Relations Division. Pool clerks fill in during vacations, illnesses or wherever additional help is needed. Consequently, Reed has been exposed to many different areas within the plant such as personnel, benefits, safety and engineering. "Through the program, she has been exposed to more than many of our permanent employees," said Joel Ellington, PGDP Employment Department.

"I like the alternating plan because you feel like you're part of what's going on," Reed commented. Although her parents were concerned about the situation at first, they are now "thrilled with her job," and the arrangement has not affected her 3.88 grade point average.

Ellington is "totally positive on the concept of co-operative education" and is supportive of the college program. "Experience is always better," Ellington said. "Frankly, I'd like to see more co-ops at Union Carbide."

David Scherrep, co-op coordinator from Paducah College, noted that almost all of today's job advertisements require a degree and experience. "Co-op provides documented work experience even if a student does not accept a permanent position with the co-op employer after graduation," he said.

"One thing is certain," Reed concludes, "I feel I've learned much more by working here full time."

At ORGDP . . .

Plant Protection personnel complete basic training

Diplomas were presented recently to 11 members of the Security and Plant Protection Division at ORGDP for completing an intensive three-week basic training course. The participants spent one week in the field on weapons qualification and tactical exercises, and two weeks in class studying the purposes and principles of the DOE security system and job-related functions, such as badge identification and portal operations.

All guards and officers are being scheduled to participate in the program during fiscal 1979.



BASIC TRAINING—Participants in a three-week basic training course for the Security and Plant Protection Division at ORGDP include: from left, course instructor, Capt. Bob Allen, A.D. Hall, Lt. Terra Townsend, Larry Moore, Lt. Floyd Glenn Sr., Clyde Sharp, Lt. Rick Hughes, Mike Walls, Lt. Howard Keck, Richard Bowman and Tom McCreary.

safety scoreboard

Time worked without a lost-time accident through November 2:

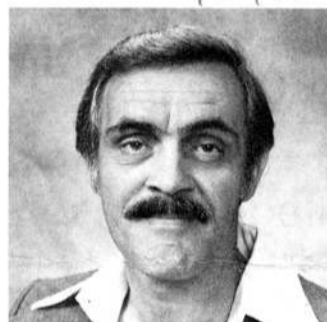
| | | |
|------------------|----------|--------------------------|
| Paducah | 83 Days | 1,049,000 Employee Hours |
| ORGDP | 210 Days | 6,772,400 Employee Hours |
| Y-12 Plant | 204 Days | 6,278,000 Employee Hours |
| ORNL | 24 Days | 630,000 Employee Hours |

Herrin promoted at Y-12 Plant

Jackson L. Herrin has been named a foreman in Y-12's Fabrication Division.

A native of Acworth, Ga., he holds an associate degree from the Marietta Technical School. He joined Union Carbide last year, after working with Lockheed Aircraft.

Mrs. Herrin is the former Barbara A. Landers, and they live at 304 Kingston Street, Lenoir City. They have a daughter, Bejie.



Herrin

Chapman, Smith promoted in P&E

Earl Chapman and Charles E. Smith have been promoted to supervisors in the Plant and Equipment Division at ORNL.

Chapman, a member of the Maintenance Department, began working for Union Carbide in 1962 as a millwright helper in P&E. From 1957 to 1961, he served in the United States Air Force.

He and his wife, Bobbie Jean, have two children, Darryl Wayne and Brenda Lynn. They live in Eagle Bluff Estates, Jacksboro.

A Union Carbide employee since 1954, Smith was a welding technologist before his promotion to shop supervisor in the Fabrication Department. He also worked 10 years as a welder for Tennessee Eastman and spent three years in the Air Force.

Smith and his wife, Stella, live at 275 East Drive, Oak Ridge. They have two daughters, Pamela and Mary Jane.



Chapman



Smith

Chemistry night classes

Persons who are interested in taking night classes in chemistry—junior, senior and graduate level—should contact either Karl Haslinger at his home phone in Knoxville 588-7810, or Jim Blue, extension 3-1151, or 483-8272 in Oak Ridge. If enough persons show interest, a chemistry program geared toward evening school students may be established for the winter quarter.

Thanksgiving holidays

Nuclear Division employees will have a two-day holiday for Thanksgiving, November 23, 24. No employee will be required to be at work unless his/her presence is necessary for continuous operations or plant security.

The remaining holidays will be December 25, 26.



BIG LIFT—The largest hydraulic crane in the Nuclear Division has been put in service by the Maintenance Division at ORGDP. It has a lifting capacity of 75 tons. Here it is extended for about 50 feet, but when fully extended, will reach a height of 155 feet. The new crane will be used for general maintenance to lift converters and other heavy equipment that are part of the current cascade improvement and uprating program.



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